



# UNITED STATES PATENT AND TRADEMARK OFFICE

*PC*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,907	01/30/2004	Sung-Hee Hwang	1793.1155	2240
49455	7590	08/11/2006	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			ALPHONSE, FRITZ	
			ART UNIT	PAPER NUMBER
			2133	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/766,907

Applicant(s)

HWANG ET AL.

Examiner

Fritz Alphonse

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner *for the Abstract recites benefits of the invention.*
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1, 5, 12.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (U.S. Pat. No. 5,696,774) in view of Arai (U.S. Pat. No. 5,757,824).

As to claim 1, Inoue (figs. 13) teaches an apparatus for generating an error flag, the apparatus including a frame-sync error memory which stores frame-sync error information for at least one data block (col. 51, lines 55 through col. 53 line 3); a BIS (Burst Indicator Subcode) error flag memory which stores a BIS error flag for the at least one data block (fig. 29; col. 31, lines 64 through col. 32 line 20).

Inoue does not explicitly disclose an error flag generator, which generates an error flag indicating an error existence/absence for ECC (Error-Correction Coding) data with reference to the frame-sync error information stored in the frame-sync error memory and the BIS error flag stored in the BIS error flag memory.

However, in the same field of endeavor, Arai (fig. 17) shows a code error correction apparatus including an error flag generator (57), which generates an error flag indicating an error existence/absence for ECC (Error-Correction Coding) data (col. 12, lines 66 through col. 13 line 6).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to incorporate the error flag generator (57) as taught by Arai in the digital signal recording device, as disclosed by Inoue. Doing so would provide a configuration of an error correction code and a decoding apparatus, which is highly capable of error correction without great quality deterioration of a reproduction signal even when there are many code errors (col. 2, lines 16-20).

As to claims 2-4, 6 and 9-10 Inoue discloses an apparatus, wherein the frame-sync error memory stores frame-sync error information corresponding to at least two data blocks; and a frame-sync detector, which receives a reproduced digital signal for the at least one data block, determines the error existence/absence for frame-sync data for the at least one data block, and outputs frame-sync error information to the frame-sync error memory (col. 40, lines 15-35).

As to claims 5 and 7, method claims 5 and 7 correspond to apparatus claim 1; therefore, they are analyzed as previously discussed in claim 1 above.

As to claim 8, the claim differs from claim 1 by the additional limitation "a frame-sync detector, outputting frame-sync error information indicating an existence/absence of an error for frame sync-data of frames forming data blocks." However, the limitation is clearly disclosed by Inoue (col.39, lines 64 through col. 40 line 14). See the motivation for the same reason disclosed in claim 1 above.

As to claims 11-16, Inoue (fig. 13) discloses an apparatus, wherein the frame-sync error memory comprises a first through N-th frame-sync error memories; and wherein N is at least two; and each of the frame-sync error memories has a size, and stores frame-sync error information of at least one data block.

Art Unit: 2133

As to claims 17-18, Inoue (fig. 13) discloses an apparatus, wherein each of the data blocks has an error correction format in which frame-sync data is recorded in a heading of the data block and BIS data columns are recorded between sets of ECC data columns (col. 5, lines 53-65).

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

**or faxed to:** (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2133

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Eric Alphonse

Art Unit 2133

August 4, 2006



**GUY LAMARRE**  
**PRIMARY EXAMINER**